sheep, that the denuded extremities of the long bones exfoliate after amputation, before the wound is cicatrized. In the second, he gives the history of a wound in the head, which required trepanning, and was 151 days before it was cured. The third was on ruptures. For the reduction of crural herniæ, Mons. T. recommends the patient to be laid on his back; an assistant, standing between his knees, to raise these as high as he can; and another holding the leg of the side affected, to turn the great toe inward, with the knee and thigh, as much as he can. In this position the intestine may be returned by gentle pressure.

Mons. Pelletan has imparted some interesting observations on aneurisms.

Mons. Larrey has pointed out the necessity of having recourse to amputation in cases of gangrene after gun-shot wounds, without waiting till a separation of the mortified part takes place.

The report of the committee on Mons. Yvart's work, entitled, Means of Improving Agriculture by Rotations of Green Crops, says, that it answers its important purpose of showing how land may be rendered constantly productive in the most profitable manner, without being exhausted.

Mons. de Cubiere read a paper on the cultivation of the bald cypress *(le cyprès-chauve)*, pointing out the advantages of this fine tree.

Mons. Leblanc, who has resided several years in America, strongly recommends the introduction of the vicugna into the Alps and Pyrenees.

Mons. Poyfere-de-Ceré gave an account of the mode in which the Spaniards wash their superfine wool.

Mons. Perey made some interesting observations on the manufacture of the jars and alearazas, which the Spaniards use for keeping liquors, and for cooling them.

DISCOVERIES AND IMPROVEMENTS IN ARTS, MANUFACTURES, &c.

Specification of the patent granted to James Parker, of Northfleet, in the County of Kent, gentleman; for a Cement or Terras to be used in aquatic and other buildings, and stucco-work.

TO all to whom these presents shall come, &c. Now KNOW YE, that in compliance with the said proviso, I the said James Parker, in pursuance of, and compliance with, the said proviso in the said recited letters patent contained, do, by this present instrument, declare that the principle and nature of the said invention and the manner in which the same is to be performed, is described and ascertained as follows; that is to say: The principle and nature of the said invention consists in reducing to powder certain stones or argillaceous productions, called nodules of clay, and using that powder with water, so as to form a mortar or cement stronger and harder than any mortar or cement now prepared by artificial means. I do not know of any precise general term for these nodules of clay, but I mean by them certain stones of clay, or concretions of clay, containing veins of calcareous matter, having frequently, but not always, water in the centre; the cavity of which is covered

with small chrystals of the above calcareous matter, and the nodules agreeing very nearly in colour with the bed of clay in or near which they are found. These nodules, on being burnt with a heat stronger than that used for burning lime, generally assume a brown appearance, and are a little softened; and when so burnt and softened become warm (but do not slack) by having water thrown upon them, and on being reduced to powder, after burning and being mixed with water, just sufficient to make into a paste, become indurated in water in the space of an hour, or thereabouts. Any argillaceous stone, then corresponding with this description, whether known by the name of nodules of clay, or any other name, is the sort and kind only that I mean to apropriate to my own use in the formation of my cement. The manner in which I prepare and compose this cement is as follows; *viz.* The stones of clay, or nodules of clay, are first broken into small fragments; then burnt in a kiln or furnace, (as lime is commonly burnt,) with a heat nearly sufficient to vitrify them; then reduced to a powder by any mechanical or other operation, and the powder so obtained is the basis of the cement. To compose the cement in the best and most advantegeous manner, I take two measures of water and five measures of the powder thus described; then I add the powder to the water or the water to the powder, taking care to stir and beat them during the whole time of intermixture. The cement is then made, and will set, or will become indurated in ten or twenty minutes after the operation has ceased, either in or out of water. But although have described what I think the best proportions for the composition of the cement, it is expressly to be understood that these, and all other proportions, are to be included within the meaning and purpose of this specification, but that no other proportion will produce so strong a cement in so short a time as those I have here pointed out. And also that I occasionally burn and grind and mix the powder before described with lime and other stones, clay, sand, or calcined earths, in such proportions as may be necessary and useful for the purposes for which the cement is intended to be applied, always observing that the less water is used the better, and the sooner the mortar or cement is used after being made, the stronger and the more durable it will be.

A detail of experiments to ascertain the daily quantity of brown Muscovado Sugar necessary to fatten Sheep; to show its effects and value when so applied; and to demonstrate what substance or substances, sufficiently cheap, might be mixed with it, so as to prevent its application to common uses, and yet render it not unpalatable nor pernicious to animals which feed upon it. Submitted to the board of Agriculture, by the Rev. Dr. Cartwright.

On this ground, therefore, it is presumed that the following conclusions, drawn from the facts which I have now the honour to lay before the board, may be justified.

First. That sugar may be given with great advantage to sheep, if not confined; especially if they have access to green food, however little that green food may be in quantity.

Secondly. That sugar may be given to them with every prospect of a beneficial effect, in the quantity of four ounces *per* day to each sheep.

Thirdly. That sugar, supposing it to be purchased at four pence *per* pound, (which it might be if duty